OIPE
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PATENT & TRADEMARK OFFICE

REMARKS

By this Amendment claims 20 and 27 have been amended to more concisely define the invention. Entry is requested.

In the outstanding Office Action the examiner has rejected claims 20, 2, 5, 6, 8-12, 26 and 27 under 35 U.S.C. §103(a) as being unpatentable over "applicant's admitted prior art as set forth in page 2 of the specification as well as figure 1 and further in view of JP 9-57,401." The examiner suggests that, based on JP 9-57,401, it would be obvious to replace the coils on the cores of the prior art casting device shown in Fig. 1 with a coil around the interconnecting yoke "to facilitate the maintenance of the EM brake."

The inventors assert that this rejection cannot be applied to the amended claims. In this regard, the examiner should realize that by permanently attaching the magnetic cores to the mould in the present invention so that they cover substantially the entire width of the mould in combination with the way of detachably connecting the yoke to the magnetic cores, the same yoke with coil, accordingly a so called standard brake, may be used for devices applied to moulds with varying width. Thus, such a device will be very cost-efficient, since no special adaption of the yoke with coil has to be done for moulds having different widths, but commercially available yokes with coil may be used for varying applications.

Neither the admitted prior art device shown in Fig. 1 of the present application nor the device according to JP 57 401 may be used without

special adaption to moulds having different widths. Furthermore, it is not possible to arrive to the present invention by combining features from these two prior art devices. The device according to Fig. 1 in the present application is a so called horizontal brake, in which a coil is wound around each of two magnetic cores arranged on a long side of the mould. A yoke interconnects the magnetic cores. Such a device requires individual adjustment of the magnetic core part around which the coils are wound for different moulds of different size and the shape and size of the magnetic cores which are used differ from case to case.

JP 57 401 discloses a so called vertical brake, in which a coil is wound around a yoke interconnecting two magnetic cores on one side of a mould. It is true that the yoke with coil may be detached from the magnetic cores, but this does not result in any possibility to adapt the brake to moulds with varying width. First of all, this device has a yoke extending substantially in parallel with the casting direction, so that the magnetic flux lines will be longitudinal instead of transversal, and for example any change of the magnetic cores 6a, 6b by longer or shorter ones would there only mean that the magnetic brake will there extend longer in the very casting direction, and any adaptation thereof to another mould size would not be obtained. It would not help to turn this device by 90°, i.e., applying the yoke of JP 57 401 to the magnetic cores of the device shown in Fig. 1 of the present application, since this would not result in a solution to the problem to be solved by the present invention. The reason for this is that the yoke in JP 57 401 is detachably connected

to magnetic core surfaces being substantially perpendicular to a long side of the mould, which means that an adaptation of the yoke with coil has to be done for moulds having different widths.

Allowance of this application is requested.

Respectfully submitted,

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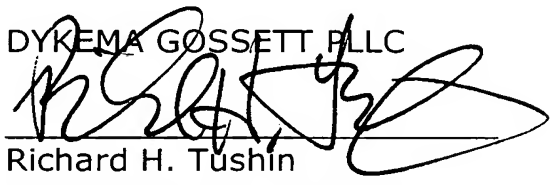
By: 

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